

Can A Poor Jobs Recovery Generate Serious Labor Shortages?

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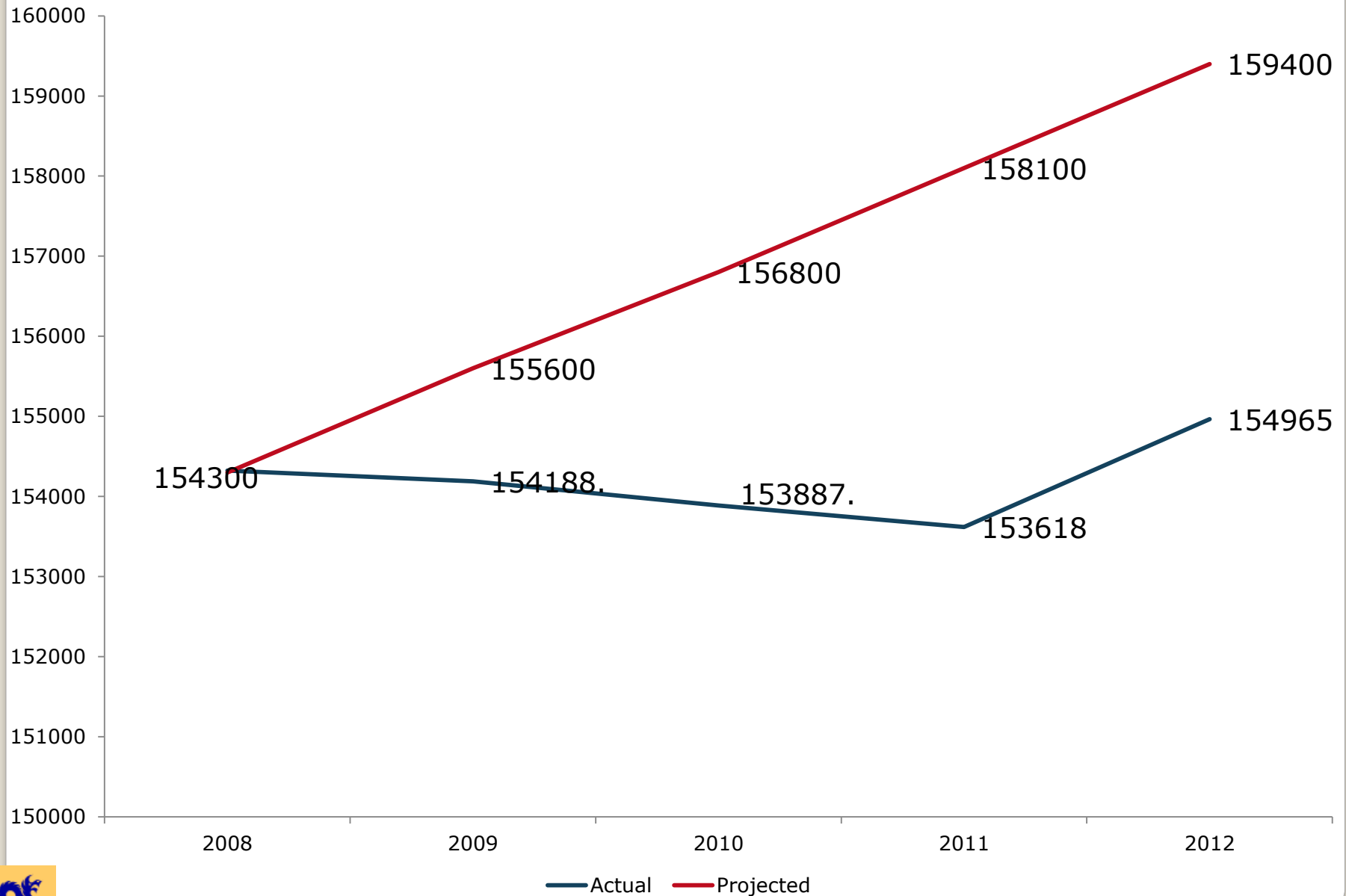


No aggregate estimate of the shortage of middle-skills workers exists, but the number is expected to grow substantially as more baby boomers retire.

Source: Kochan, Finegold, and Osterman. "Who Can Fix the 'Middle-Skills' Gap?"
Harvard Business Review, December 2012



Trends in Actual and Projected Labor Force Growth



Trends in Labor Force Participation Rates of the Non Institutional Civilian Working Age Population in the U.S., by Age

	2000	2012	Percentage Point Change
16-19	52.6	34.4	-18.2
20-24	77.8	70.9	-6.9
25-34	85.0	81.7	-3.3
35-44	84.8	82.6	-2.2
45-54	82.7	80.3	-2.4
55-64	58.9	64.4	5.5
65-69	24.4	32.5	8.1
70-74	13.5	19.1	5.6
75+	5.3	7.6	2.3

Total Labor Force in Washington, 2003-2007, by Age Group

Year	2003	2007	Absolute Change	Percent Change
Total, 16 to 19 years	173	161	-12	-6.9%
Total, 20 to 24 years	337	329	-8	-2.4%
Total, 25 to 34 years	669	767	98	14.6%
Total, 35 to 44 years	768	759	-9	-1.2%
Total, 45 to 54 years	736	813	77	10.5%
Total, 55 to 64 years	380	484	104	27.4%
Total, 65 years and over	77	106	29	37.7%

Labor Force Percentage, in Washington, 2003-2007, by Age Group

Year	2003	2007	Absolute Change	Percent Change
Total, 16 to 19 years	48.9%	45.9%	-3.0%	-6.1%
Total, 20 to 24 years	78.7%	79.7%	0.9%	1.2%
Total, 25 to 34 years	81.6%	84.8%	3.2%	3.9%
Total, 35 to 44 years	83.1%	84.3%	1.2%	1.5%
Total, 45 to 54 years	83.1%	85.9%	2.8%	3.3%
Total, 55 to 64 years	61.4%	63.3%	1.9%	3.1%
Total, 65 years and over	11.6%	14.3%	2.8%	23.9%

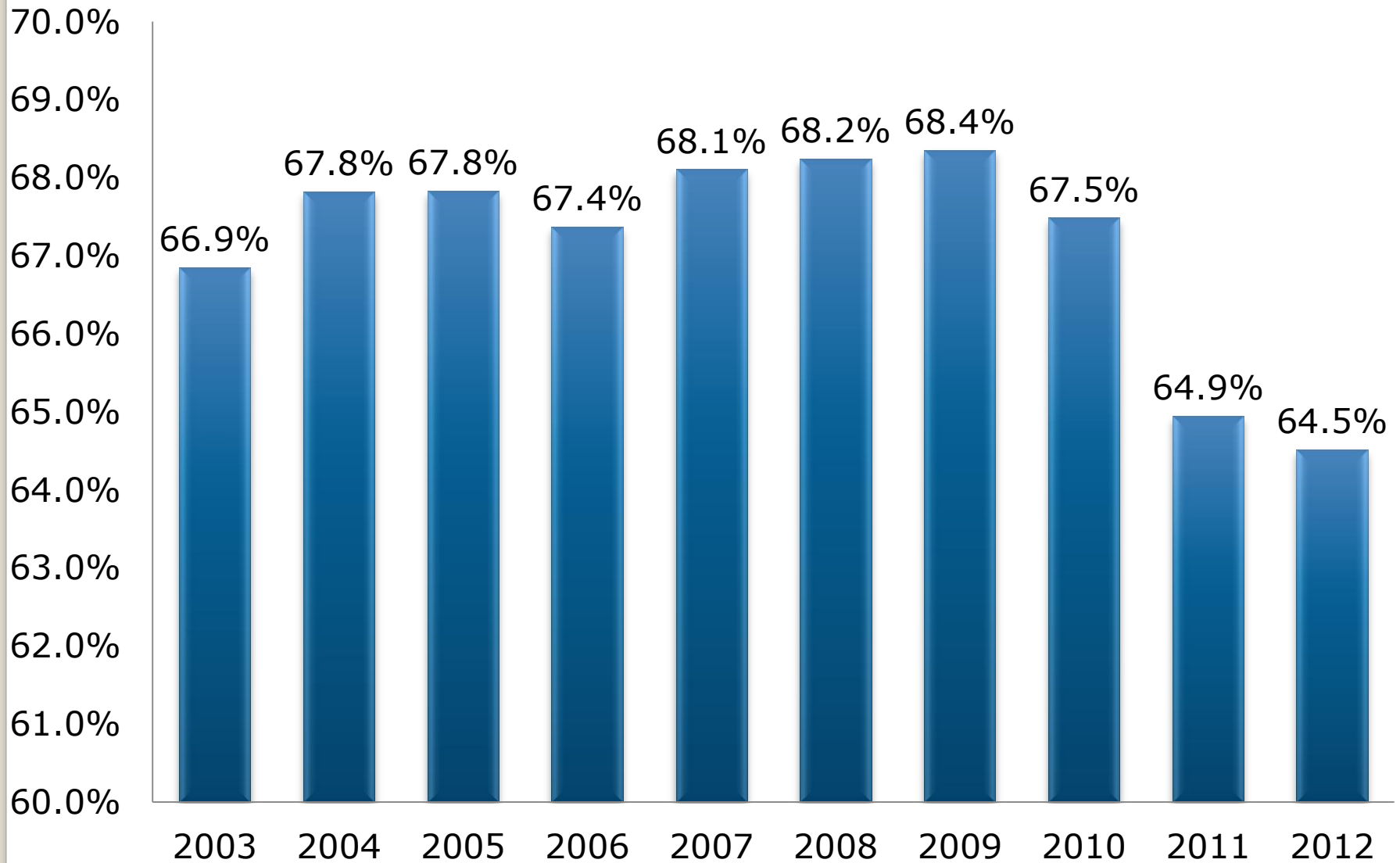
Total Labor Force in Washington, 2007-2012, by Age Group

Year	2007	2012	Absolute Change	Percent Change
Total, 16 to 19 years	161	127	-34	-21.1%
Total, 20 to 24 years	329	323	-6	-1.8%
Total, 25 to 34 years	767	740	-27	-3.5%
Total, 35 to 44 years	759	775	16	2.1%
Total, 45 to 54 years	813	763	-50	-6.2%
Total, 55 to 64 years	484	579	95	19.6%
Total, 65 years and over	106	163	57	53.8%

Labor Force Percentage, in Washington, 2007-2012, by Age Group

Year	2007	2012	Absolute Change	Percent Change
Total, 16 to 19 years	45.9%	35.4%	-10.5%	-22.9%
Total, 20 to 24 years	79.7%	71.0%	-8.7%	-10.9%
Total, 25 to 34 years	84.8%	82.4%	-2.3%	-2.8%
Total, 35 to 44 years	84.3%	81.8%	-2.6%	-3.1%
Total, 45 to 54 years	85.9%	81.9%	-4.0%	-4.6%
Total, 55 to 64 years	63.3%	66.5%	3.2%	5.1%
Total, 65 years and over	14.3%	17.8%	3.5%	24.2%

Labor Force Percentage



■ Labor Force Percentage

Trends in the Size of the Civilian Labor Force Over the Course of the Economic Crisis

	2007 IV	2012 IV	Absolute Change	Relative Change
16-24	22240	21449	-791	-3.6%
25-54	104450	101037	-3413	-3.3%
55+	26990	33007	6017	22.3%

Employment in the U.S., December 2007 – February 2010

Seasonally Adjusted

Industry	December 2007	February 2010	Absolute Change	Relative Change
Total Nonfarm	138042	129320	-8722	-6.3%
Mining and Logging	740	675	-65	-8.8%
Construction	7490	5522	-1968	-26.3%
Manufacturing	13746	11460	-2286	-19.9%
Wholesale Trade	6037.8	5445.7	-592.1	-9.8%
Retail Trade	15570.8	14397	-1173.8	-7.5%
Transportation and Warehousing	4548	4143.1	-404.9	-8.9%
Utilities	557.1	554.7	-2.4	-0.4%
Information	3024	2734	-290	-9.6%
Financial Activities	8281	7724	-557	-6.7%
Professional and Business Services	18051	16549	-1502	-8.3%
Education and Health Services	18554	19395	841	4.5%
Leisure and Hospitality	13550	12935	-615	-4.5%
Other Services	5516	5315	-201	-3.6%
Government	22376	22470	94	0.4%

Employment in the U.S., February 2010 – June 2013

Seasonally Adjusted

Industry	February 2010	June 2013	Absolute Change	Relative Change
Total Nonfarm	129320	135902	6582	5.09%
Mining and Logging	675	867	192	28.44%
Construction	5522	5812	290	5.25%
Manufacturing	11460	11964	504	4.40%
Wholesale Trade	5445.7	5760.5	314.8	5.78%
Retail Trade	14397	15135.9	738.9	5.13%
Transportation and Warehousing	4143.1	4456.8	313.7	7.57%
Utilities	554.7	559.3	4.6	0.83%
Information	2734	2688	-46	-1.68%
Financial Activities	7724	7896	172	2.23%
Professional and Business Services	16549	18537	1988	12.01%
Education and Health Services	19395	20662	1267	6.53%
Leisure and Hospitality	12935	14230	1295	10.01%
Other Services	5315	5482	167	3.14%
Government	22470	21851	-619	-2.75%



Ratio of Loss to Recovery

<i>Seasonally Adjusted</i> Industry	Period of Job Loss		Period of Recovery		Ratio of Loss to Recovery
	Absolute Change	Relative Change	Absolute Change	Relative Change	
Total Nonfarm	-8722	-6.3%	6582	5.09%	0.75
Mining and Logging	-65	-8.8%	192	28.44%	2.95
Construction	-1968	-26.3%	290	5.25%	0.15
Manufacturing	-2286	-19.9%	504	4.40%	0.22
Wholesale Trade	-592.1	-9.8%	314.8	5.78%	0.53
Retail Trade	-1173.8	-7.5%	738.9	5.13%	0.63
Transportation and Warehousing	-404.9	-8.9%	313.7	7.57%	0.77
Utilities	-2.4	-0.4%	4.6	0.83%	1.92
Information	-290	-9.6%	-46	-1.68%	0.16
Financial Activities	-557	-6.7%	172	2.23%	0.31
Professional and Business Services	-1502	-8.3%	1988	12.01%	1.32
Education and Health Services	841	4.5%	1267	6.53%	1.51
Leisure and Hospitality	-615	-4.5%	1295	10.01%	2.11
Other Services	-201	-3.6%	167	3.14%	0.83
Government	94	0.4%	-619	-2.75%	6.59

Employment in the U.S., June 2012 – June 2013

Seasonally Adjusted

Industry	June 2012	June 2013	Absolute Change	Relative Change
Total Nonfarm	133609	135902	2293	1.72%
Mining and Logging	853	867	14	1.64%
Construction	5622	5812	190	3.38%
Manufacturing	11935	11964	29	0.24%
Wholesale Trade	5675.6	5760.5	85	1.50%
Retail Trade	14835.8	15135.9	300	2.02%
Transportation and Warehousing	4400.2	4456.8	57	1.29%
Utilities	555.3	559.3	4	0.72%
Information	2675	2688	13	0.49%
Financial Activities	7788	7896	108	1.39%
Professional and Business Services	17913	18537	624	3.48%
Education and Health Services	20296	20662	366	1.80%
Leisure and Hospitality	13716	14230	514	3.75%
Other Services	5429	5482	53	0.98%
Government	21915	21851	-64	-0.29%



Employment in the U.S.: Professional and Business Services

June 2012 – June 2013

Seasonally Adjusted

Industry	June 2012	June 2013	Absolute Change	Relative Change
<u>Professional and Business Services</u>	17913	18537	624	3.48%
Professional and Technical Services	7884.5	8111.3	227	2.88%
Legal Services	1121.9	1122.9	1	0.09%
Accounting and Bookkeeping Services	910.9	936.5	26	2.81%
Architectural and Engineering Services	1321.9	1356.1	34	2.59%
Computer Systems Design and Related Services	1617.7	1694.3	77	4.74%
Management and Technical Consulting Services	1119.4	1187.4	68	6.07%
Management of Companies and Enterprises	2008.1	2046	38	1.89%
Administrative Waste Services	8020.5	8379.7	359	4.48%
Administrative and Support Services	7646.8	7998.4	352	4.60%
Employment Services	3143.2	3363.3	220	7.00%
Temporary Help Services	2514.3	2681.7	167	6.66%
Business Support Services	826.2	846.3	20	2.43%
Services to Buildings and Dwellings	1826.6	1881.3	55	2.99%
Waste Management and Remediation Services	373.7	381.3	8	2.03%



Employment in the U.S.: Education and Health Services

June 2012 – June 2013

Seasonally Adjusted

Industry	June 2012	June 2013	Absolute Change	Relative Change
<u>Education and Health Services</u>	20296	20662	366	1.80%
Educational Services	3348	3358.4	10	0.31%
Health Care and Social Assistance	16947.8	17303.1	355	2.10%
Health Care	14284.2	14568.1	284	1.99%
Ambulatory Health Care Services	6308	6514.1	206	3.27%
Hospitals	4782.2	4834.7	53	1.10%
Nursing and Residential Care Facilities	3194	3219.3	25	0.79%
Social Assistance	2663.6	2735	71	2.68%
Child Day Care Services	851.6	854.4	3	0.33%

Employment in Washington State, December 2007 – February 2010

Seasonally Adjusted

Industry	December 2007	February 2010	Absolute Change	Relative Change
Total Nonfarm	2965.7	2777.1	-188.6	-6.36%
Mining and Logging	7.9	5.8	-2.1	-26.58%
Construction	208.9	143.7	-65.2	-31.21%
Manufacturing	295.9	257	-38.9	-13.15%
Wholesale Trade	131.2	119.8	-11.4	-8.69%
Retail Trade	330.6	306.7	-23.9	-7.23%
Transportation and Utilities	96.7	88.1	-8.6	-8.89%
Information	103.1	102.7	-0.4	-0.39%
Financial Activities	157.5	140.9	-16.6	-10.54%
Professional and Business Services	349.8	321.4	-28.4	-8.12%
Education and Health Services	355	373	18	5.07%
Leisure and Hospitality	285	264.6	-20.4	-7.16%
Other Services	106.4	104.5	-1.9	-1.79%
Government	537.7	548.9	11.2	2.08%



Employment in Washington State, February 2010 – May 2013

Seasonally Adjusted

Industry	February 2010	May 2013	Absolute Change	Relative Change
Total Nonfarm	2777.1	2919.7	142.6	5.13%
Mining and Logging	5.8	5.9	0.1	1.72%
Construction	143.7	141.1	-2.6	-1.81%
Manufacturing	257	287.5	30.5	11.87%
Wholesale Trade	119.8	125.9	6.1	5.09%
Retail Trade	306.7	329.8	23.1	7.53%
Transportation and Utilities	88.1	95	6.9	7.83%
Information	102.7	104.7	2	1.95%
Financial Activities	140.9	142.5	1.6	1.14%
Professional and Business Services	321.4	351.7	30.3	9.43%
Education and Health Services	373	392.7	19.7	5.28%
Leisure and Hospitality	264.6	284.4	19.8	7.48%
Other Services	104.5	111.7	7.2	6.89%
Government	548.9	546.8	-2.1	-0.38%



Employment in Washington State: Professional and Business Services 2010 - 2013

Seasonally Adjusted

Industry	2010 QII Average	2013 QII Average	Absolute Change (QII)	Relative Change (QII)
Professional and Business Services	324.73	354.17	29.43	9.06%
Professional, Scientific, and Technical Services	160.73	175.10	14.37	8.94%
Legal Services	20.77	22.17	1.40	6.74%
Accounting, Tax Preparation, Bookkeeping, and Payroll Services	16.80	17.20	0.40	2.38%
Architectural, Engineering, and Related Services	33.90	34.37	0.47	1.38%
Computer Systems Design and Related Services	33.70	40.67	6.97	20.67%
Management of Companies and Enterprises	31.80	37.63	5.83	18.34%
Administrative and Support and Waste Management and Remediation Services	132.20	141.43	9.23	6.98%
Administrative and Support Services	116.13	127.70	11.57	9.96%
Employment Services	35.07	44.57	9.50	27.09%
Waste Management and Remediation Services	16.07	13.73	-2.33	-14.52%

Employment in Washington State: Education and Health Services 2010 - 2013

Seasonally Adjusted

Industry	2010 QII Average	2013 QII Average	Absolute Change (QII)	Relative Change (QII)
Education and Health Services	376.73	393.43	16.70	4.43%
Educational Services	50.97	53.57	2.60	5.10%
Health Care and Social Assistance	325.77	339.87	14.10	4.33%
Ambulatory Health Care Services	131.70	136.43	4.73	3.59%
Hospitals	73.27	75.77	2.50	3.41%
Nursing and Residential Care Facilities	58.87	63.00	4.13	7.02%
Social Assistance	61.93	64.67	2.73	4.41%

Employment in Washington State: Leisure and Hospitality 2010 - 2013

Seasonally Adjusted

Industry	2010 QII Average	2013 QII Average	Absolute Change (QII)	Relative Change (QII)
Leisure and Hospitality	269.63	288.00	18.37	6.81%
Arts, Entertainment, and Recreation	46.43	47.30	0.87	1.87%
Accommodation and Food Services	223.20	240.70	17.50	7.84%
Accommodation	29.77	30.37	0.60	2.02%
Food Services and Drinking Places	193.43	210.33	16.90	8.74%

States Experiencing the Greatest Relative Job Losses During the Great Recession

Rank	State	Job Recession		Job Recovery		Ratio of Job Loss to Job Recovery
		Net Gain/Loss	Relative Change	Net Gain/Loss	Relative Change	Job Recovery Rate
1	Nevada	-174.8	-13.5%	44.5	4.0%	25.5%
2	Arizona	-296.7	-11.1%	125.1	5.2%	42.2%
3	Florida	-799.3	-10.1%	377.4	5.3%	47.2%
4	Michigan	-411.8	-9.7%	241.2	6.3%	58.6%
5	California	-1332.3	-8.8%	803.4	5.8%	60.3%
6	Idaho	-55	-8.4%	38.4	6.4%	69.8%
7	Oregon	-139.8	-8.1%	72	4.5%	51.5%
8	Georgia	-333.4	-8.0%	190.1	5.0%	57.0%
9	Ohio	-425.3	-7.8%	200.5	4.0%	47.1%
10	South Carolina	-151.4	-7.8%	93.4	5.2%	61.7%
11	Alabama	-156.1	-7.7%	45.9	2.5%	29.4%
12	Delaware	-33.7	-7.6%	15.7	3.9%	46.6%
13	Tennessee	-207.2	-7.4%	157.3	6.1%	75.9%
14	North Carolina	-301.1	-7.3%	208.2	5.4%	69.1%
15	Rhode Island	-35.7	-7.2%	10.3	2.3%	28.9%

States Experiencing the Greatest Relative Job Losses During the Great Recession

Rank	State	Job Recession		Job Recovery		Ratio of Job Loss to Job Recovery
		Net Gain/Loss	Relative Change	Net Gain/Loss	Relative Change	Job Recovery Rate
16	Indiana	-214.2	-7.2%	172.8	6.2%	80.7%
17	Hawaii	-44.3	-7.1%	27.3	4.7%	61.6%
18	Illinois	-397.9	-6.6%	195.8	3.5%	49.2%
19	Connecticut	-113.3	-6.6%	58.7	3.7%	51.8%
20	Mississippi	-76.2	-6.6%	43.7	4.0%	57.3%
21	Utah	-80.9	-6.5%	106.9	9.1%	132.1%
23	Kentucky	-118.3	-6.3%	88.6	5.1%	74.9%
23	New Jersey	-243.8	-6.0%	131.7	3.4%	54.0%
24	Colorado	-135.4	-5.8%	153.5	6.9%	113.4%
25	Wisconsin	-165.1	-5.7%	97.6	3.6%	59.1%
26	New Mexico	-46.8	-5.5%	9.5	1.2%	20.3%
27	Maryland	-142.3	-5.4%	144.9	5.9%	101.8%
28	Washington	-159.2	-5.4%	152.4	5.5%	95.7%
29	Missouri	-150.3	-5.4%	60.4	2.3%	40.2%
30	Kansas	-66.3	-4.8%	58.1	4.4%	87.6%
31	Arkansas	-57.1	-4.7%	34.4	3.0%	60.2%
32	Maine	-28.5	-4.6%	8.9	1.5%	31.2%
33	Virginia	-171.7	-4.6%	172.6	4.8%	100.5%
34	Montana	-20.3	-4.5%	21.6	5.1%	106.4%
35	New Hampshire	-27.8	-4.3%	22	3.5%	79.1%

States Experiencing the Greatest Relative Job Losses During the Great Recession

Rank	State	Job Recession		Job Recovery		Ratio of Job Loss to Job Recovery
		Net Gain/Loss	Relative Change	Net Gain/Loss	Relative Change	Job Recovery Rate
36	Vermont	-13	-4.2%	10.9	3.7%	83.8%
37	Pennsylvania	-234.3	-4.0%	193.2	3.5%	82.5%
38	Iowa	-60.9	-4.0%	66.3	4.5%	108.9%
39	Minnesota	-101	-3.6%	102	3.8%	101.0%
40	Massachusetts	-119	-3.6%	145.8	4.6%	122.5%
41	Oklahoma	-51.6	-3.2%	76.4	5.0%	148.1%
42	New York	-279.3	-3.2%	382.3	4.5%	136.9%
43	Louisiana	-60.8	-3.1%	72.5	3.9%	119.2%
44	Nebraska	-28.1	-2.9%	32.1	3.4%	114.2%
45	Wyoming	-7.9	-2.7%	9.3	3.3%	117.7%
46	West Virginia	-19.1	-2.5%	25.7	3.5%	134.6%
47	South Dakota	-6.7	-1.6%	18.8	4.7%	280.6%
48	Texas	-146.2	-1.4%	922.8	9.0%	631.2%
49	Alaska	2.1	0.7%	12.9	4.0%	614.3%
50	North Dakota	4	1.1%	73.3	19.8%	1832.5%

States Experiencing the Greatest Relative Job Gains During the Great Recession

Rank	State	Job Recession		Job Recovery		Ratio of Job Loss to Job Recovery
		Net Gain/Loss	Relative Change	Net Gain/Loss	Relative Change	Job Recovery Rate
1	North Dakota	4	1.1%	73.3	19.8%	1832.5%
2	Utah	-80.9	-6.5%	106.9	9.1%	132.1%
3	Texas	-146.2	-1.4%	922.8	9.0%	631.2%
4	Colorado	-135.4	-5.8%	153.5	6.9%	113.4%
5	Idaho	-55	-8.4%	38.4	6.4%	69.8%
6	Michigan	-411.8	-9.7%	241.2	6.3%	58.6%
7	Indiana	-214.2	-7.2%	172.8	6.2%	80.7%
8	Tennessee	-207.2	-7.4%	157.3	6.1%	75.9%
9	Maryland	-142.3	-5.4%	144.9	5.9%	101.8%
10	California	-1332.3	-8.8%	803.4	5.8%	60.3%
11	Washington	-159.2	-5.4%	152.4	5.5%	95.7%
12	North Carolina	-301.1	-7.3%	208.2	5.4%	69.1%
13	Florida	-799.3	-10.1%	377.4	5.3%	47.2%
14	Arizona	-296.7	-11.1%	125.1	5.2%	42.2%
15	South Carolina	-151.4	-7.8%	93.4	5.2%	61.7%

States Experiencing the Greatest Relative Job Gains During the Great Recession

Rank	State	Job Recession		Job Recovery		Ratio of Job Loss to Job Recovery
		Net Gain/Loss	Relative Change	Net Gain/Loss	Relative Change	Job Recovery Rate
16	Montana	-20.3	-4.5%	21.6	5.1%	106.4%
17	Kentucky	-118.3	-6.3%	88.6	5.1%	74.9%
18	Georgia	-333.4	-8.0%	190.1	5.0%	57.0%
19	Oklahoma	-51.6	-3.2%	76.4	5.0%	148.1%
20	Virginia	-171.7	-4.6%	172.6	4.8%	100.5%
21	South Dakota	-6.7	-1.6%	18.8	4.7%	280.6%
23	Hawaii	-44.3	-7.1%	27.3	4.7%	61.6%
23	Massachusetts	-119	-3.6%	145.8	4.6%	122.5%
24	Iowa	-60.9	-4.0%	66.3	4.5%	108.9%
25	Oregon	-139.8	-8.1%	72	4.5%	51.5%
26	New York	-279.3	-3.2%	382.3	4.5%	136.9%
27	Kansas	-66.3	-4.8%	58.1	4.4%	87.6%
28	Mississippi	-76.2	-6.6%	43.7	4.0%	57.3%
29	Alaska	2.1	0.7%	12.9	4.0%	614.3%
30	Ohio	-425.3	-7.8%	200.5	4.0%	47.1%
31	Nevada	-174.8	-13.5%	44.5	4.0%	25.5%
32	Louisiana	-60.8	-3.1%	72.5	3.9%	119.2%
33	Delaware	-33.7	-7.6%	15.7	3.9%	46.6%
34	Minnesota	-101	-3.6%	102	3.8%	101.0%
35	Vermont	-13	-4.2%	10.9	3.7%	83.8%

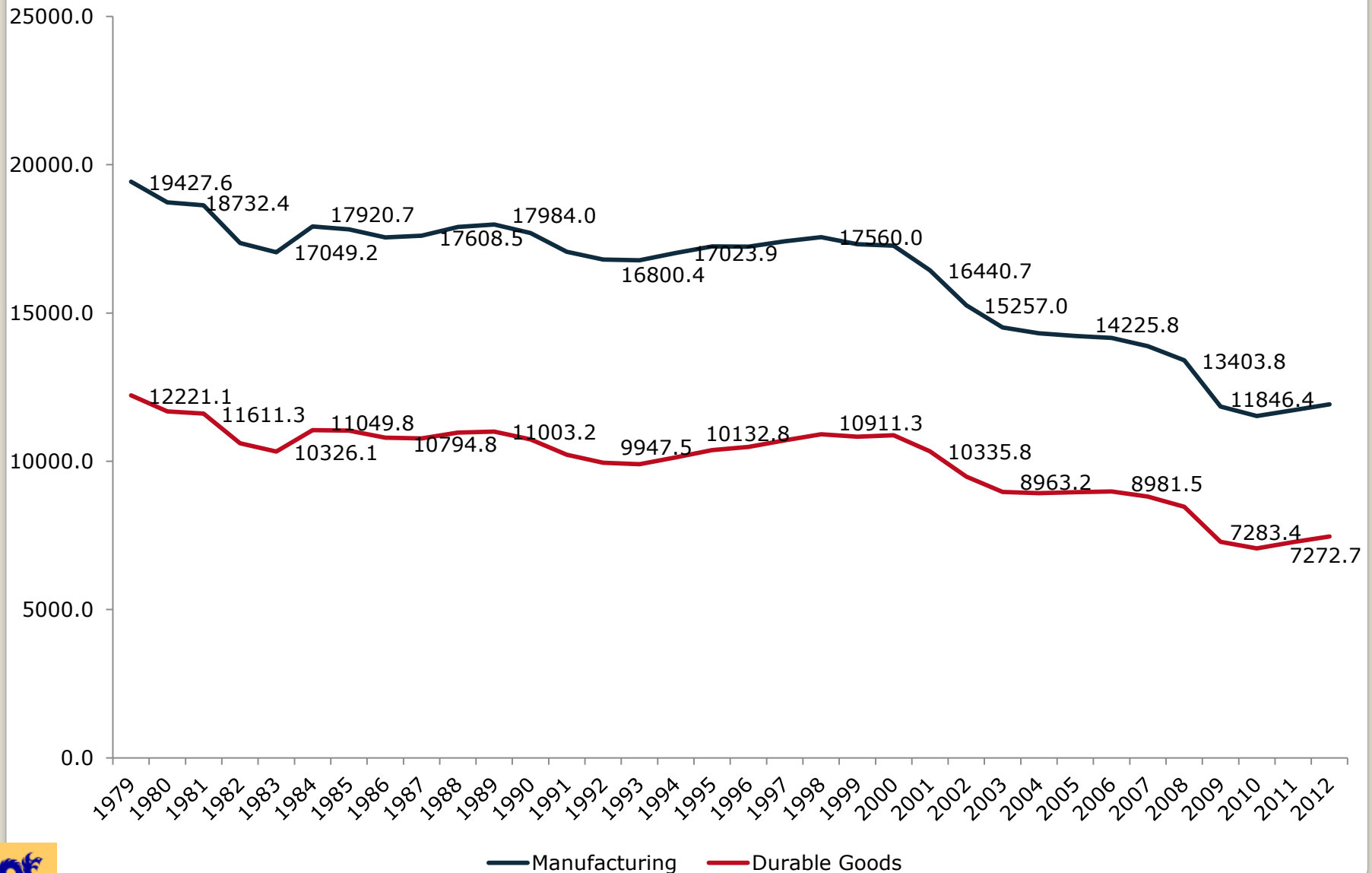
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		Net Gain/Loss	Relative Change	Net Gain/Loss	Relative Change	Job Recovery Rate
36	Connecticut	-113.3	-6.6%	58.7	3.7%	51.8%
37	Wisconsin	-165.1	-5.7%	97.6	3.6%	59.1%
38	New Hampshire	-27.8	-4.3%	22	3.5%	79.1%
39	Illinois	-397.9	-6.6%	195.8	3.5%	49.2%
40	West Virginia	-19.1	-2.5%	25.7	3.5%	134.6%
41	Pennsylvania	-234.3	-4.0%	193.2	3.5%	82.5%
42	New Jersey	-243.8	-6.0%	131.7	3.4%	54.0%
43	Nebraska	-28.1	-2.9%	32.1	3.4%	114.2%
44	Wyoming	-7.9	-2.7%	9.3	3.3%	117.7%
45	Arkansas	-57.1	-4.7%	34.4	3.0%	60.2%
46	Alabama	-156.1	-7.7%	45.9	2.5%	29.4%
47	Missouri	-150.3	-5.4%	60.4	2.3%	40.2%
48	Rhode Island	-35.7	-7.2%	10.3	2.3%	28.9%
49	Maine	-28.5	-4.6%	8.9	1.5%	31.2%
50	New Mexico	-46.8	-5.5%	9.5	1.2%	20.3%

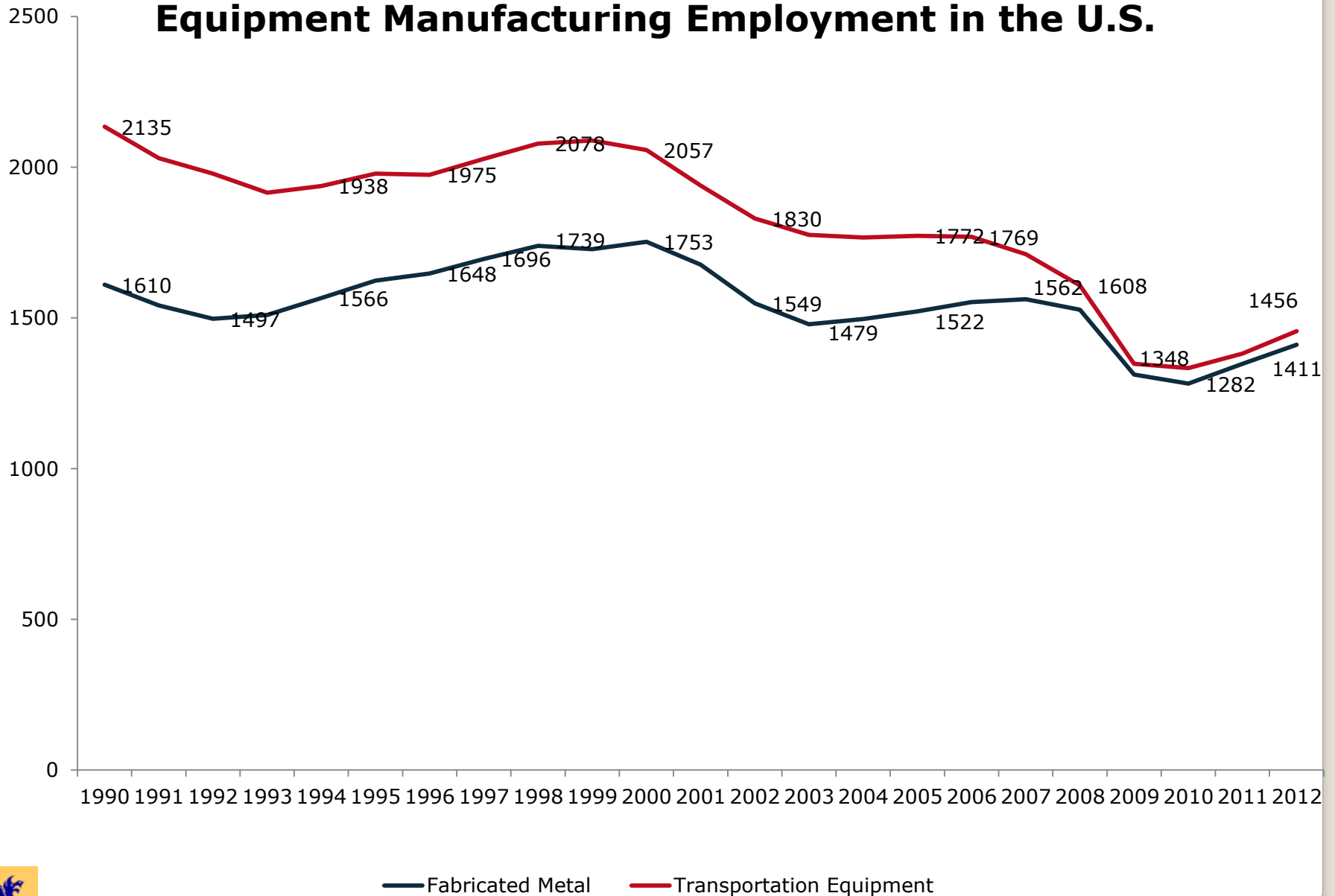
Trends in Wage and Salary Employment for 11 Most Rapidly Growing 3-Digit NAICS Industries in the U.S. Economy During the Current Jobs Recovery

Rank	NAICS Industry Code	Industry Title	Q1 2010	Q4 2012	Absolute Change	Relative Change	Share of Total Change
1	561	Administrative & support services	6918	7733.8	815.9	11.8%	16.1%
	56132	Temporary help services	1975.5	2551.1	575.6	29.1%	11.4%
2	722	Food services and drinking places	9305.8	10070.9	765.1	8.2%	15.1%
3	621	Ambulatory health care services	5915.3	6400.9	485.6	8.2%	9.6%
4	332	Fabricated metal products	1258.8	1421.1	162.4	12.9%	3.2%
5	336	Transportation equipment	1319.5	1470.8	151.4	11.5%	3.0%
6	622	Hospitals	4673.8	4820.6	146.8	3.1%	2.9%
7	441	Motor vehicle and parts dealers	1613.6	1746.8	133.2	8.3%	2.6%
8	484	Truck transportation	1236.2	1366.6	130.4	10.5%	2.6%
9	452	General merchandise stores	2958.5	3085	126.5	4.3%	2.5%
10	333	Machinery	977.4	1098.4	121	12.4%	2.4%
11	213	Support activities for mining	268.6	389	120.4	44.8%	2.4%
		Top 11 3-Digit Industries	36445.4	39604.1	3158.7	8.7%	67.4%
		All Other Industries	92619	94145.9	1526.9	1.6%	
		Total Nonfarm	129064.4	133750	4685.6	3.6%	

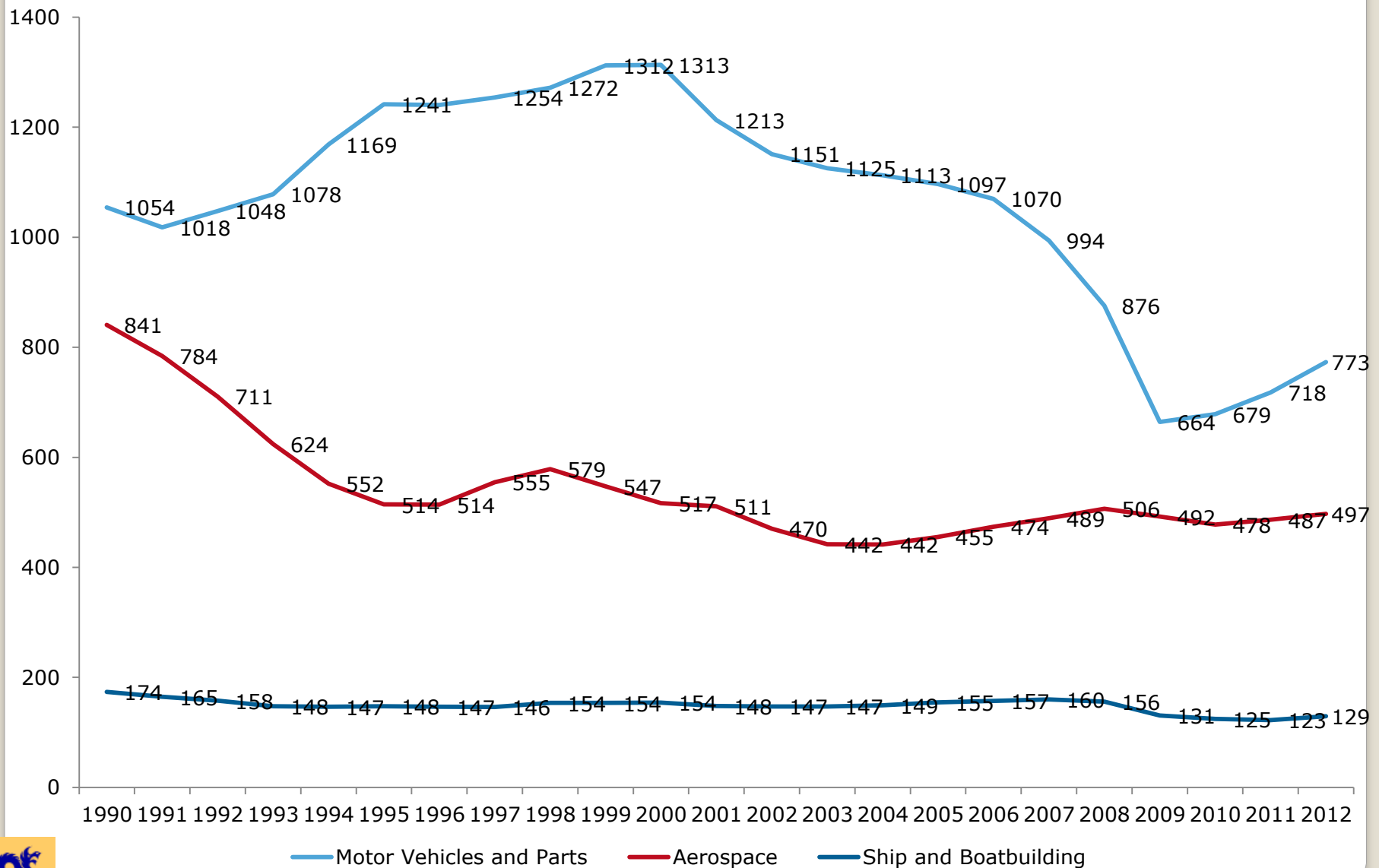
Trends in Total Manufacturing and Durable Goods Manufacturing Industry Employment



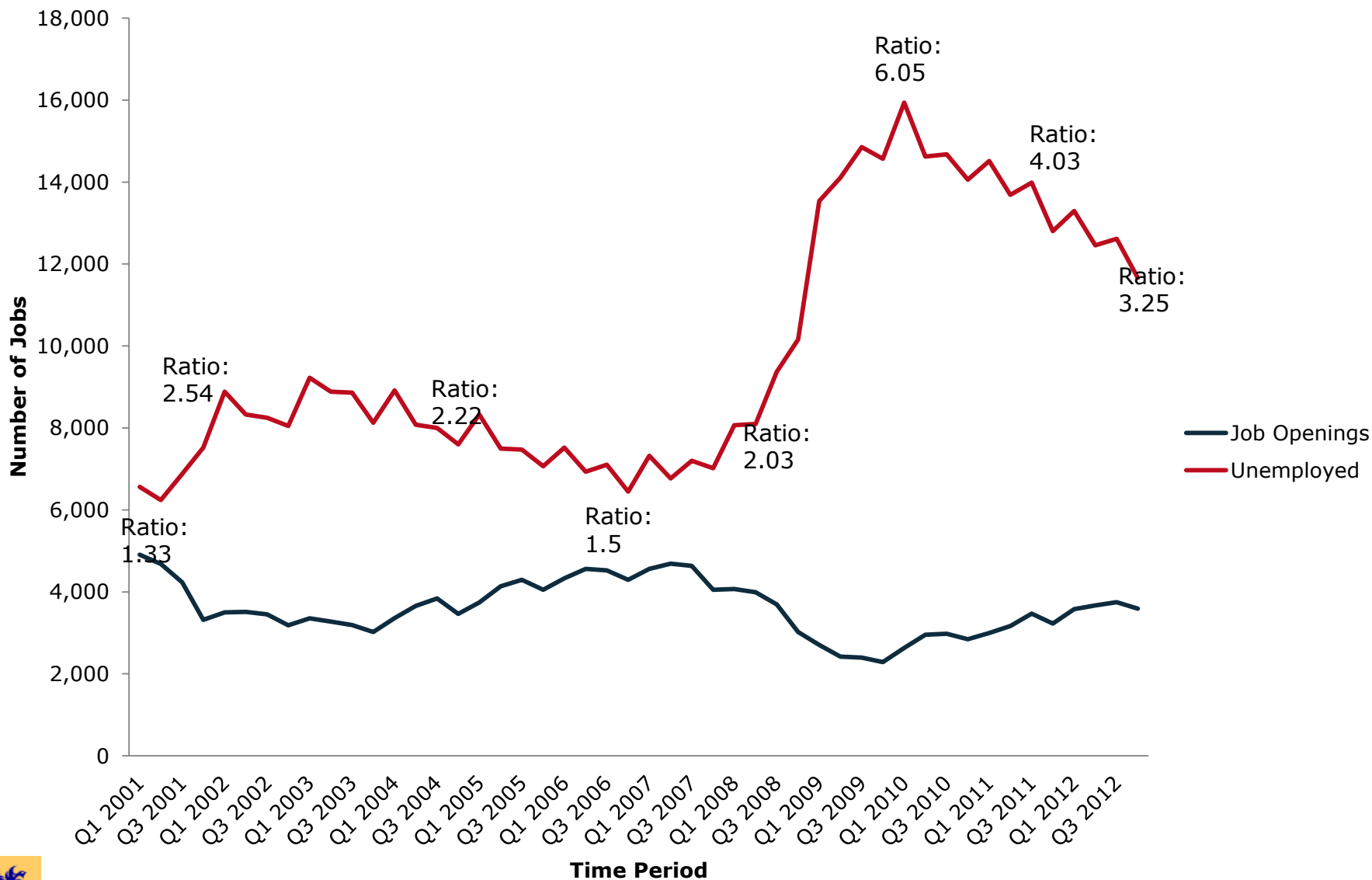
Trends in Fabricated Metal and Transportation Equipment Manufacturing Employment in the U.S.



Trends in the Motorvehicle, Aerospace and Ship and Boatbuilding Manufacturing



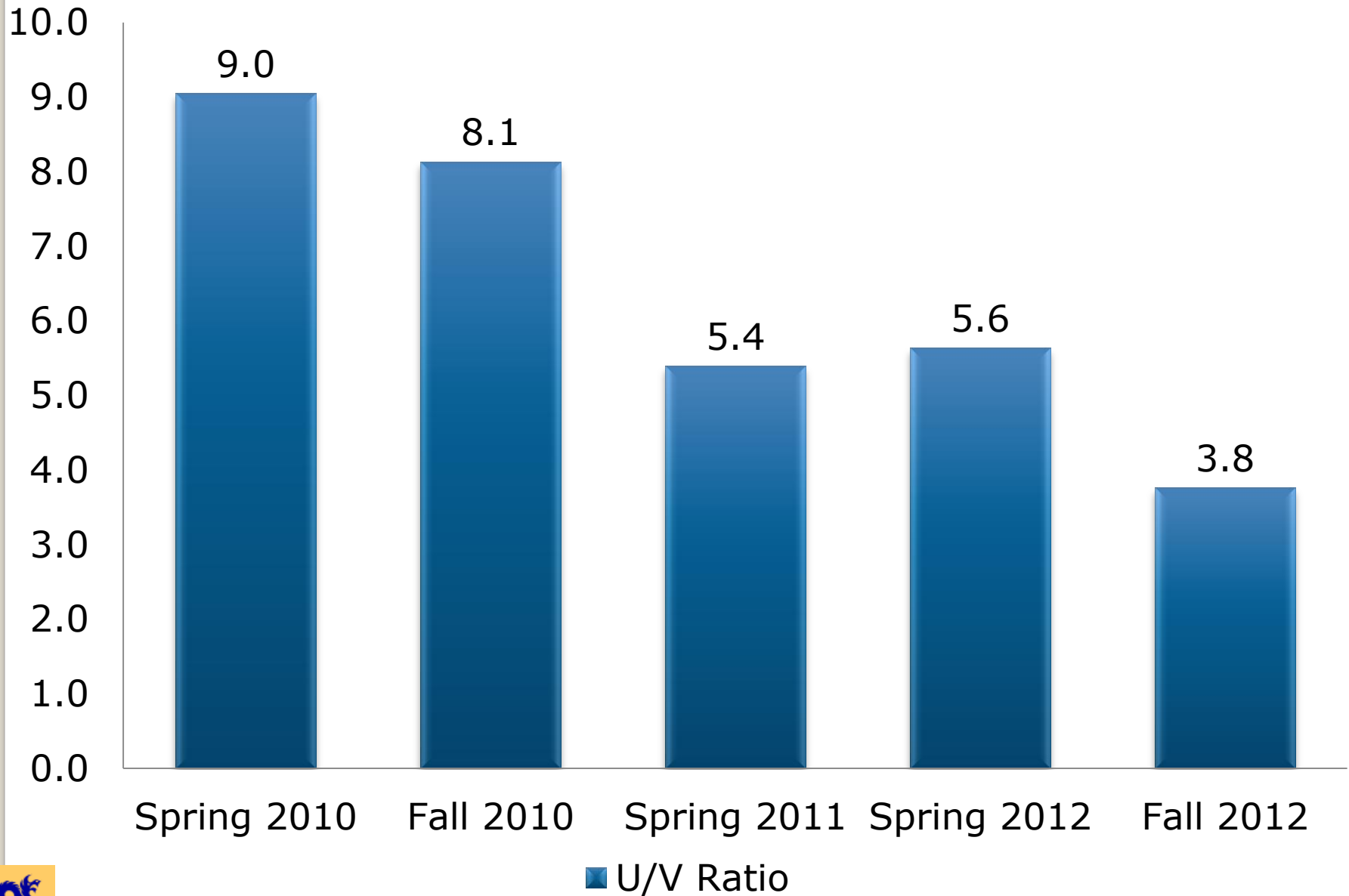
Ratio of Unemployment to Job Vacancies, in the U.S., 2001-2012



Unemployment/Vacancy Ratio in Washington in 2010-2012

	Spring 2010	Fall 2010	Spring 2011	Spring 2012	Fall 2012	Absolute Change	Percent Change
Total Unemployment	350433.0	340605.0	324128.0	292587.7	265182.7	-85250.3	-24.3%
Total Vacancy	38732	41889	60087	51934	70434	31702.0	81.8%
U/V Ratio	9.0	8.1	5.4	5.6	3.8	-5.3	-58.4%

U/V Ratio IN Washington



**Ratio of Experienced Unemployed to Job Openings, by Major Industry Sector in the U.S. During the Dot.Com Jobs Recession
(Not Seasonally Adjusted)**

Industry	Q3 2001	Q3 2003	Absolute Change	Relative Change
Nonagricultural Employment	1.63	2.78	1.15	70.8%
Construction	3.18	6.56	3.38	106.1%
Manufacturing	3.40	5.76	2.36	69.6%
Wholesale and Retail	1.69	2.59	0.90	53.2%
Transportation and Utilities	1.72	3.08	1.37	79.8%
Professional and Business Services	1.24	1.37	0.13	10.5%
Education and Health Services	0.66	1.33	0.66	100.0%
Leisure and Hospitality	1.36	2.73	1.37	100.9%
Other Services	0.85	3.15	2.31	272.5%
Government	1.16	2.21	1.05	91.0%



Ratio of Experienced Unemployed to Job Openings, by Major Industry Sector in the U.S. During the Dot.Com Jobs Recovery (Not Seasonally Adjusted)

Industry	Q3 2003	Q4 2007	Absolute Change	Relative Change
Nonagricultural Employment	2.78	1.73	(1.04)	-37.6%
Construction	6.56	7.07	0.50	7.7%
Manufacturing	5.76	2.62	(3.14)	-54.5%
Wholesale and Retail	2.59	1.75	(0.84)	-32.5%
Transportation and Utilities	3.08	1.50	(1.59)	-51.4%
Professional and Business Services	1.37	0.97	(0.41)	-29.7%
Education and Health Services	1.33	0.74	(0.59)	-44.4%
Leisure and Hospitality	2.73	1.74	(0.99)	-36.2%
Other Services	3.15	1.24	(1.91)	-60.7%
Government	2.21	1.14	(1.07)	-48.5%

Ratio of Experienced Unemployed to Job Openings, by Major Industry Sector in the U.S. During the Great Recession Jobs Decline (Not Seasonally Adjusted)

Industry	Q4 2007	Q1 2010	Absolute Change	Relative Change
Nonagricultural Employment	1.73	6.05	4.32	249.5%
Construction	7.07	35.13	28.06	397.1%
Manufacturing	2.62	12.35	9.73	371.4%
Wholesale and Retail	1.75	6.25	4.51	258.2%
Transportation and Utilities	1.50	11.08	9.58	639.2%
Professional and Business Services	0.97	4.05	3.08	319.4%
Education and Health Services	0.74	2.12	1.39	188.3%
Leisure and Hospitality	1.74	7.09	5.35	306.8%
Other Services	1.24	3.09	1.85	149.5%
Government	1.14	2.36	1.23	107.7%

Ratio of Experienced Unemployed to Job Openings, by Major Industry Sector in the U.S. During the Great Recession Jobs Recovery (Not Seasonally Adjusted)

Industry	Q1 2010	Q4 2012	Absolute Change	Relative Change
Nonagricultural Employment	6.05	3.25	(2.81)	-46.4%
Construction	35.13	11.85	(23.27)	-66.3%
Manufacturing	12.35	4.13	(8.21)	-66.5%
Wholesale and Retail	6.25	2.58	(3.68)	-58.8%
Transportation and Utilities	11.08	3.56	(7.52)	-67.9%
Professional and Business Services	4.05	2.05	(2.00)	-49.4%
Education and Health Services	2.12	1.73	(0.39)	-18.5%
Leisure and Hospitality	7.09	3.23	(3.86)	-54.4%
Other Services	3.09	2.97	(0.12)	-3.9%
Government	2.36	2.50	0.14	5.7%

Vacancy by Industry in Washington 2010-2012

Industry	Fall 2010	Fall 2012	Absolute Change	Percent Change
Agriculture, forestry, fishing, and hunting	745	8674	7929.0	1064.3%
Mining	2		-2.0	-100.0%
Utilities	40	183	143.0	357.5%
Construction	630	3225	2595.0	411.9%
Manufacturing	2302	8204	5902.0	256.4%
Wholesale trade	1425	3395	1970.0	138.2%
Retail trade	7743	7124	-619.0	-8.0%
Transportation and warehousing	1029	2349	1320.0	128.3%
Information	1639	1150	-489.0	-29.8%
Finance and insurance	2704	1816	-888.0	-32.8%
Real estate and rental and leasing	539	1218	679.0	126.0%
Professional, scientific, and technical services	2954	4085	1131.0	38.3%
Management of companies and enterprises	961	678	-283.0	-29.4%
Administrative and support and waste management	2259	3002	743.0	32.9%
Educational services	2644	3220	576.0	21.8%
Health care and social assistance	9124	12548	3424.0	37.5%
Arts, entertainment, and recreation	749	1120	371.4	49.6%
Accommodation and food services	2945	4517	1571.8	53.4%
Other services	1454	3896	2441.6	167.9%
Total	41889	70404	28515.0	68.1%

Vacancy by Occupation in Washington 2010-2012

Occupation Title	Fall 2010	Fall 2012	Absolute Change	Percent Change
Management occupations	2159	2823	664	30.8%
Business and financial operations occupations	2377	3429	1052	44.3%
Computer and mathematical occupations	2783	2397	-386	-13.9%
Architecture and engineering occupations	1212	2459	1247	102.9%
Life, physical, and social science occupations	161	285	124	77.0%
Community and social service occupations	841	776	-65	-7.7%
Legal occupations	198	198	0	0.0%
Education, training, and library occupations	2969	1970	-999	-33.6%
Arts, design, entertainment, sports, and media occupations	1102	849	-253	-23.0%
Healthcare practitioners and technical occupations	3128	3793	665	21.3%
Healthcare support occupations	1526	3306	1780	116.6%
Protective service occupations	226	455	229	101.3%
Food preparation and serving related occupations	3069	4706	1637	53.3%
Building and grounds cleaning and maintenance occupations	849	1114	265	31.2%
Personal care and service occupations	2162	2954	792	36.6%
Sales and related occupations	7246	7131	-115	-1.6%
Office and administrative support occupations	4404	7887	3483	79.1%
Farming, fishing, and forestry occupations	857	8699	7842	915.1%
Construction and extraction occupations	408	2816	2408	590.2%
Installation, maintenance, and repair occupations	1123	2951	1828	162.8%
Production occupations	1106	5653	4547	411.1%
Transportation and material moving occupations	1982	3783	1801	90.9%
Total	41889	70434	28545	68.1%

Vacancy by Education in Washington 2010-2012

Education level	Fall 2010	Fall 2012	Absolute Change	Percent Change
No requirement	12061	27314	15252.5	126.5%
High school diploma	9287	17583	8296.3	89.3%
Some college or no degree	1289	3905	2615.6	202.9%
Assoc or voc degree	4676	6456	1780.2	38.1%
Bachelors degree	8996	9434	438.3	4.9%
Graduate degree	1601	1620	19.1	1.2%
Other	2037	4122	2084.7	102.3%
Not specified	1942		-1941.8	-100.0%
Total	41889	70434	28545.0	68.1%

Ratio of Experienced Unemployed to Job Openings, by Major Industry Sector in the U.S. 2007 IV to 2012 IV (Not Seasonally Adjusted)

Industry	Q4 2007	Q4 2012	Absolute Change	Relative Change
Nonagricultural Employment	1.73	3.25	1.52	87.5%
Construction	7.07	11.85	4.79	67.8%
Manufacturing	2.62	4.13	1.51	57.7%
Wholesale and Retail	1.75	2.58	0.83	47.6%
Transportation and Utilities	1.50	3.56	2.06	137.6%
Professional and Business Services	0.97	2.05	1.08	112.1%
Education and Health Services	0.74	1.73	1.00	135.1%
Leisure and Hospitality	1.74	3.23	1.49	85.4%
Other Services	1.24	2.97	1.73	139.8%
Government	1.14	2.50	1.36	119.6%

Trends in Mean Weekly Hours of Work in Private Sector Payroll Employment



Trends in Mean Weekly Hours of Work Among the Ten Rapid Growth Industries In the U.S.

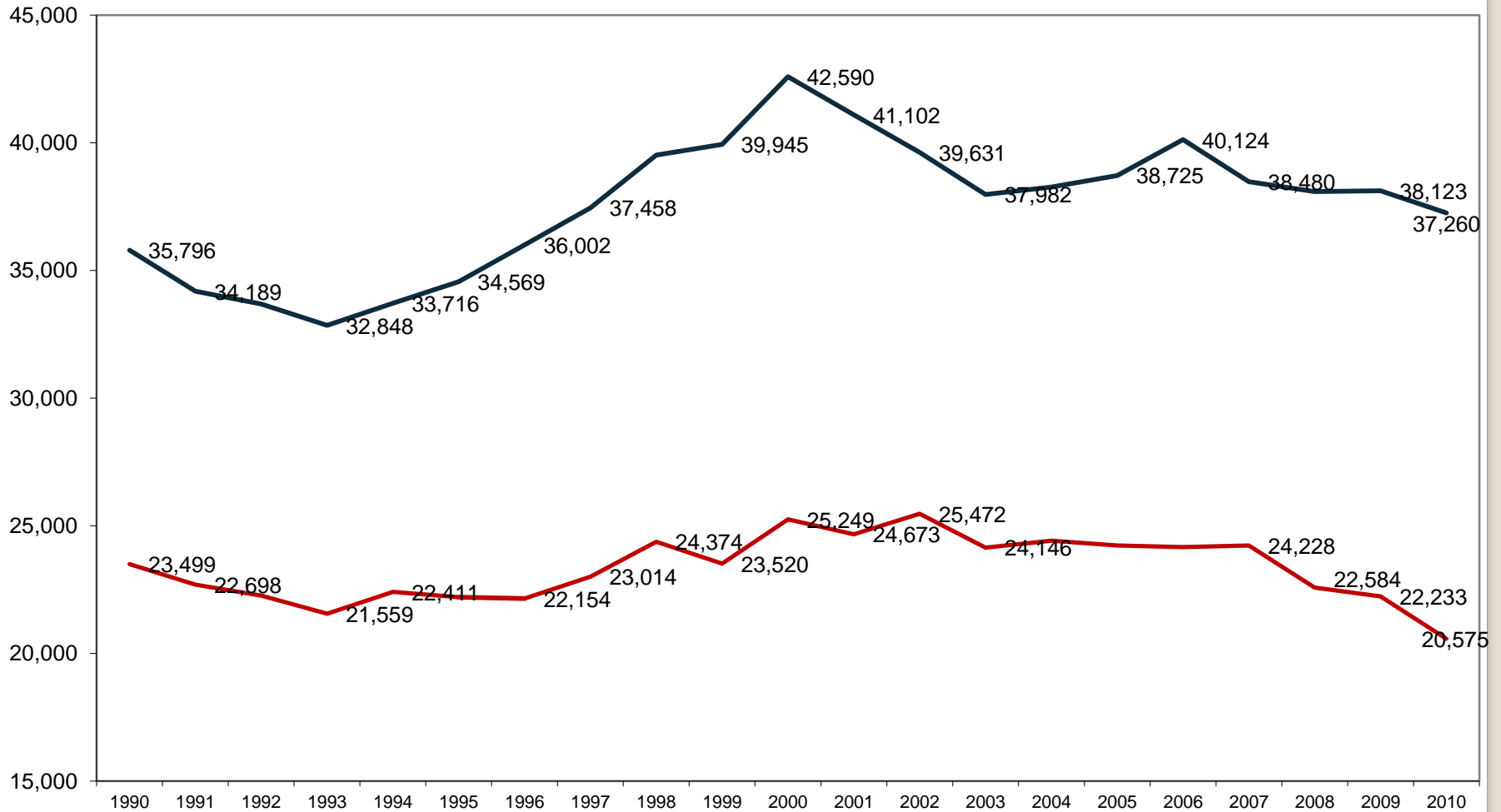
HOURS (SEASONALLY ADJUSTED)	Q4 2007	Q2 2009	Q2 2010	Q4 2012
Total private	34.5	33.8	34.1	34.4
Administrative and support services	33.7	33.1	33.5	34.4
Food services and drinking places	25.0	24.6	24.9	25.5
Ambulatory health care services	31.6	31.6	31.9	32.2
Fabricated metal products	40.2	38.1	40.0	40.8
Transportation equipment	41.7	40.3	42.6	42.4
Hospitals	36.2	35.9	35.9	35.9
Motor vehicle and parts dealers	36.0	36.3	36.9	37.7
Truck transportation	39.8	39.8	40.9	41.3
General merchandise stores	32.1	31.4	31.5	31.1
Machinery	40.9	39.0	40.8	40.9

Trends in the Real Hourly Earnings of All Private Sector Workers and Workers Employed in the Most Rapidly Growing Industries in the U.S. 2007 to 2012

(Constant 2012 Dollars)

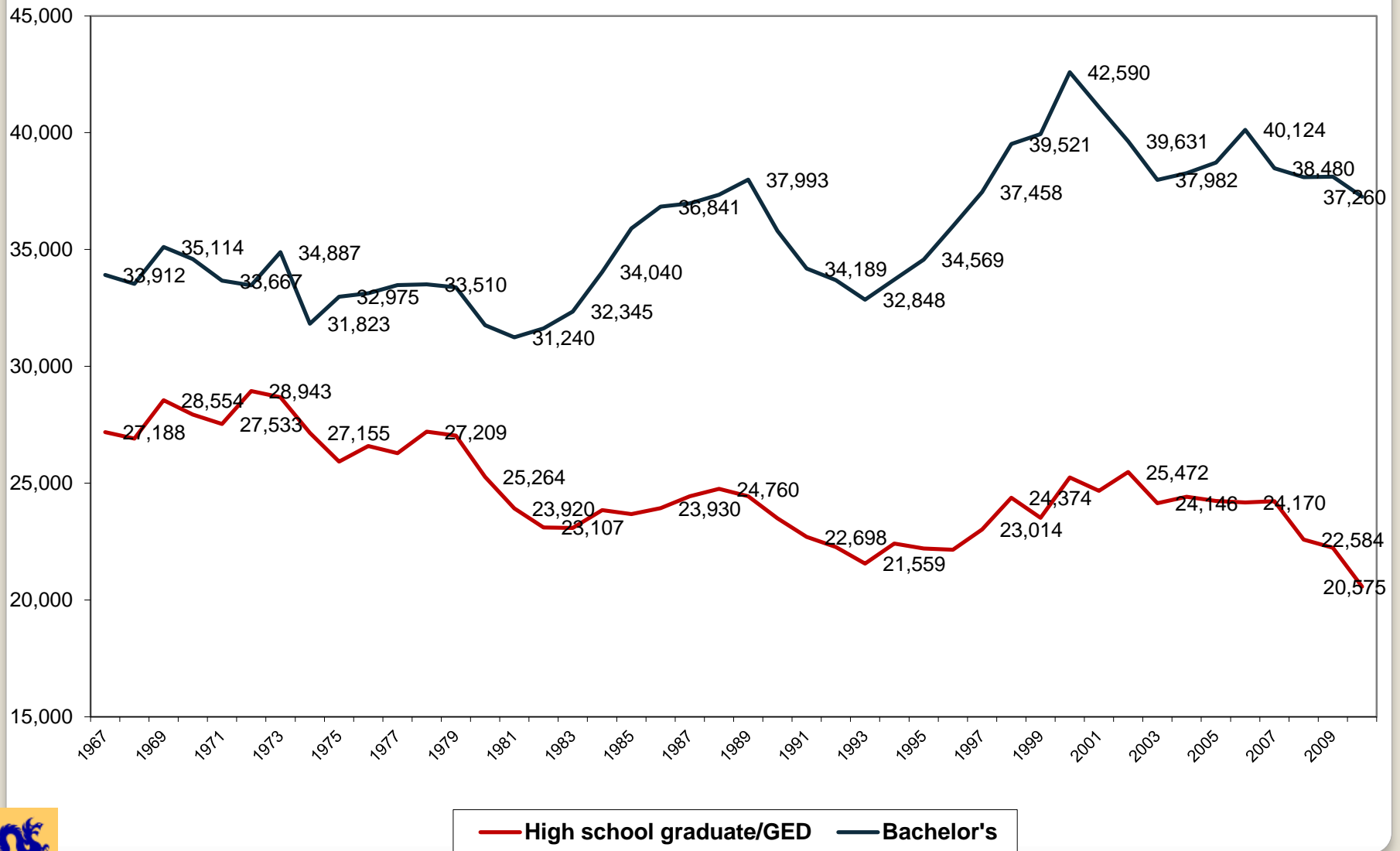
Seasonally Adjusted	Q4 2007	Q2 2009	Q2 2010	Q4 2012	2007 IV to 2012 IV Change	
					Absolute Change	Relative Change
Total Private	23.42	24.22	24.13	23.66	0.24	1%
Administrative and support services	18.31	19.13	18.70	17.80	-0.51	-3%
Food services and drinking places	12.10	12.33	12.30	11.97	-0.13	-1%
Ambulatory health care services	28.14	28.72	28.95	29.34	1.20	4%
Fabricated metal products	22.04	23.10	22.76	21.63	-0.41	-2%
Transportation equipment	29.05	31.04	30.41	28.76	-0.29	-1%
Hospitals	27.22	28.67	29.03	28.87	1.65	6%
Motor vehicle and parts dealers	22.15	20.99	21.04	21.36	-0.79	-4%
Truck transportation	22.06	21.55	21.83	22.11	0.04	0%
General merchandise stores	12.97	13.05	12.87	13.53	0.56	4%
Machinery	25.11	26.30	26.15	26.08	0.96	4%

Mean Annual Earnings of 20-29 Year Old Employed Persons, U.S. 1990-2010 (In 2010 Dollars)



— High school graduate/GED — Bachelor's

Mean Annual Earnings of 20-29 Year Old Employed Persons, U.S. 1967-2010 (In 2010 Dollars)



Trends in the Mean Annual Earnings of 20-29 Years Old Employed Persons in the U.S., by Level of Educational Attainment

Year	High School Only	Bachelor's Only	Absolute Change	Relative Change
2000	25,249	42,590	17,342	68.7%
2001	24,673	41,102	16,428	66.6%
2002	25,472	39,631	14,159	55.6%
2003	24,146	37,982	13,836	57.3%
2004	24,422	38,270	13,848	56.7%
2005	24,235	38,725	14,489	59.8%
2006	24,170	40,124	15,954	66.0%
2007	24,228	38,480	14,252	58.8%
2008	22,584	38,094	15,510	68.7%
2009	22,233	38,123	15,890	71.5%
2010	20,575	37,260	16,684	81.1%

Mal-employment Rate, Non-enrolled Employed with a Bachelor's Degree or Higher

Age Group	USA	Pennsylvania
20-24	44.1%	42.1%
25-29	32.2%	29.3%
30-34	26.2%	23.9%
35-64	26.2%	24.7%

Source: ACS 2007-2011



Mal-employment Rate, Enrolled Employed with a Bachelor's Degree or Higher

Age Group	USA	Pennsylvania
20-24	52.9%	52.2%
25-29	32.2%	25.7%
30-34	26.7%	22.3%
35-64	25.0%	21.0%

Source: ACS 2007-2011

USA Job Zone Distribution

Employed with a Bachelor's Degree or Higher

	Job Zone 1	Job Zone 2	Job Zone 3 (Non-CLM)	Job Zone 3 (CLM)	Job Zone 4	Job Zone 5	Total
20-24	8.9%	24.1%	14.4%	9.3%	32.5%	10.7%	2,458,585
25-29	3.5%	16.0%	12.7%	9.3%	42.0%	16.5%	5,815,236
30-34	2.1%	12.9%	11.3%	9.2%	44.5%	20.1%	5,721,561
35-64	1.9%	12.7%	11.6%	9.6%	42.5%	21.8%	31,102,467
Total	2.5%	13.8%	11.8%	9.5%	42.1%	20.3%	45,097,849

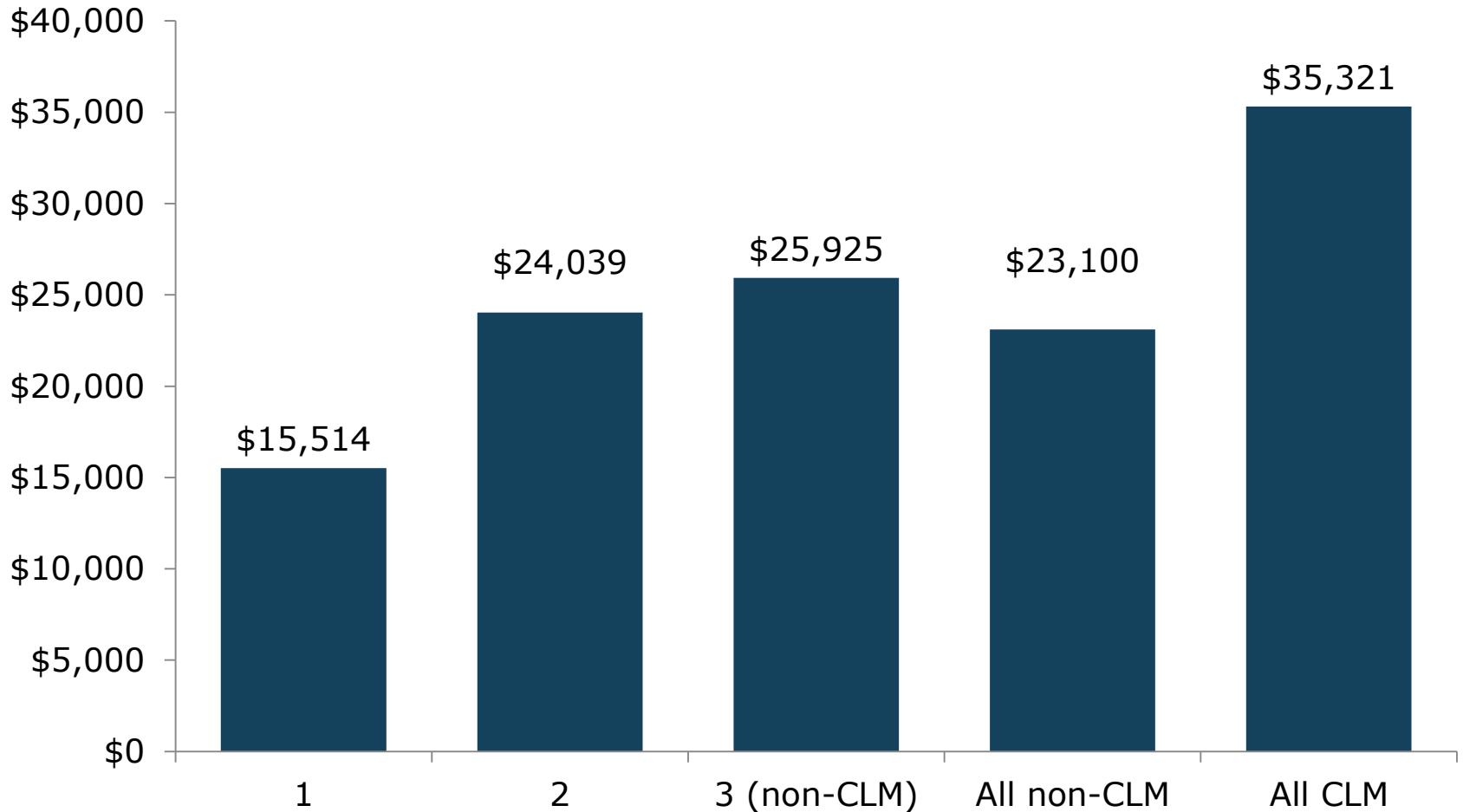
Source: ACS 2007-2011

Pennsylvania Job Zone Distribution Employed with a Bachelor's Degree or Higher

	Job Zone 1	Job Zone 2	Job Zone 3 (Non-CLM)	Job Zone 3 (CLM)	Job Zone 4	Job Zone 5	Total
20-24	9.4%	23.9%	12.8%	10.9%	31.1%	11.9%	127,175
25-29	3.2%	14.5%	10.7%	9.7%	41.7%	20.1%	249,725
30-34	1.6%	12.0%	10.1%	8.6%	42.9%	24.8%	229,574
35-64	1.8%	12.4%	10.4%	10.3%	40.9%	24.2%	1,260,559
Total	2.5%	13.4%	10.5%	10.0%	40.6%	22.9%	1,867,033

Source: ACS 2007-2011

Average Annual Earnings for Employed College Graduates in Pennsylvania, 20-24 years old



Source: ACS 2007-2011

Mal-employment Rate by Major Employed with a Bachelor's Degree or Higher

20-64 years old	USA	Pennsylvania
Science	22.9%	21.6%
Engineering	19.7%	16.1%
Math and Computer Science	19.1%	18.0%
Education and Training	24.8%	25.2%
Legal	34.8%	35.8%
Humanities/Liberal Arts	36.4%	35.6%
Communication	35.5%	38.1%
Other	41.1%	39.3%
Health-Related	13.8%	12.3%
Social Sciences	32.1%	30.2%
Business/Management	32.6%	31.3%
Total	28.2%	26.6%

Source: ACS 2007-2011



Mal-employment Rate by Major Employed with a Bachelor's Degree or Higher

20-24 years old	USA	Pennsylvania
Science	45.4%	39.4%
Engineering	29.3%	23.6%
Math and Computer Science	31.1%	33.8%
Education and Training	39.4%	36.9%
Legal	49.2%	100.0%
Humanities/Liberal Arts	62.3%	60.9%
Communication	54.0%	63.2%
Other	57.5%	64.0%
Health-Related	33.9%	31.5%
Social Sciences	56.4%	56.9%
Business/Management	50.6%	49.8%
Total	48.8%	47.2%

Source: ACS 2007-2011



Mal-employment Rate by Major Employed with a Bachelor's Degree or Higher

35-64 years old	USA	Pennsylvania
Science	20.6%	20.0%
Engineering	20.0%	16.6%
Math and Computer Science	18.4%	17.5%
Education and Training	24.9%	26.1%
Legal	33.2%	36.2%
Humanities/Liberal Arts	32.5%	31.5%
Communication	31.8%	34.0%
Other	38.2%	37.2%
Health-Related	12.2%	10.4%
Social Sciences	28.5%	26.7%
Business/Management	30.9%	29.1%
Total	26.0%	24.6%

Source: ACS 2007-2011



Mal-employment Rate by Major Employed with a Bachelor's Degree or Higher

25-29 years old	USA	Pennsylvania
Science	27.3%	23.3%
Engineering	17.4%	13.3%
Math and Computer Science	19.6%	14.1%
Education and Training	23.7%	20.8%
Legal	37.4%	31.0%
Humanities/Liberal Arts	44.9%	44.3%
Communication	40.4%	36.8%
Other	42.7%	29.0%
Health-Related	16.2%	14.1%
Social Sciences	39.1%	34.7%
Business/Management	36.4%	35.7%
Total	32.7%	28.9%

Source: ACS 2007-2011



Mal-employment Rate by Major Employed with a Bachelor's Degree or Higher

30-34 years old	USA	Pennsylvania
Science	20.9%	17.1%
Engineering	16.9%	12.2%
Math and Computer Science	18.5%	18.3%
Education and Training	20.1%	18.0%
Legal	32.5%	27.4%
Humanities/Liberal Arts	36.4%	35.2%
Communication	33.0%	37.3%
Other	38.2%	36.1%
Health-Related	12.9%	11.5%
Social Sciences	30.7%	26.7%
Business/Management	31.1%	29.5%
Total	26.5%	23.7%

Source: ACS 2007-2011



Change in the Number of 22-64 Year Old Employed Persons by Major Industry, US: 2000-01 to 2010-11

Major Industry	2000-2001	2010-2011	Absolute Change	Relative Change
Construction	9,134,285	8,449,877	-684,408	-7.5%
Manufacturing	17,826,215	13,322,886	-4,503,329	-25.3%
Wholesale and Retail Trade	16,002,202	16,443,576	441,374	2.8%
Financial Services	8,567,325	8,607,729	40,404	0.5%
Professional and business services	12,543,047	14,218,776	1,675,729	13.4%
Education and health services	24,318,010	29,176,031	4,858,021	20.0%
Other Services	13,515,997	15,266,465	1,750,468	13.0%
Total	120,718,839	124,101,642	3,382,803	2.8%

Change in the Number of 22-64 Year Old Employed Persons by Major Occupation, US: 2000-01 to 2010-11

Major Occupation	2000-2001	2010-2011	Absolute Change	Relative Change
College Labor Market	51,593,813	55,544,143	3,950,330	7.7%
Office and Admin. Support	17,576,600	15,912,910	-1,663,690	-9.5%
Service and low level sales	21,758,772	25,985,489	4,226,717	19.4%
Blue Collar	28,959,156	25,877,914	-3,081,242	-10.6%
Total	120,718,844	124,101,644	3,382,800	2.8%